Elective Surgery Information System (ESIS) User Manual

14th Edition 2011–12

Section 5 Compilation and Submission

Download from the Department of Health web site at:
http://www.health.vic.gov.au/hdss/

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ESIS Manual Sections

The Elective Surgery Information System (ESIS) Manual sections are:	
Glossary	**Lists the terms and abbreviations used in the ESIS manual.**
Section 1	**ESIS Manual Introduction** **Provides information on the development and purpose of the ESIS data collection, data submission timeframes, scope and coverage, contact details and a list of relevant abbreviations.**
Section 2	**Concept and Derived Item Definitions** **Provides definitions of concepts that are the foundation of the ESIS collection and information that the department derives from the data submitted.**
Section 3a	**Data Definitions - Data collection items** **Details the specifications of data items relating to individual waiting episodes for reporting to ESIS.**
Section 3b	**Data Definitions - Technical elements** **Details the technical or database elements required for submission of ESIS data.**
Section 4	**Business Rules** **Draws together a number of concepts and data items as well as describing the technical functions of the ESIS processing.**
Section 5	**Compilation and Submission** **Specifies the required format of ESIS records submitted to AED. It includes details such as file naming conventions, file structures, reporting requirements, data security, test submission and system migration.**
Section 6	**Editing** **Each ESIS edit message is listed in this section in numerical order. The entry for each edit message describes the problem and the remedy.**
Section 7	**Supplementary Code Lists** **http://www.health.vic.gov.au/hdss/reffiles/index.htm**

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SECTION 5: Compilation and Submission

Introduction

This section specifies how to format ESIS data for reporting to the Department of Health, the submission timelines and information on what is included in the ESIS output files which are returned to health services after each submission.

This section also outlines the necessary testing requirements that health services and software vendors need to complete when a site is either new to ESIS reporting or changing software.

Health services are required to submit five types of text files that are used to update the following tables maintained by the department:

- Patient Table (Patient Extract)
- Episode Table (Episode Extract)
- Intra Episode Table (Intra Episode Extract)
- Merge Table (Merge Extract)
- Reconciliation Table (Reconciliation Extract).

All text files must:

- be tab-delimited ASCII, with fields trimmed of leading and trailing spaces.
- have labels that represent the field names in the first row. The fields in the text files can be in any order.
- follow the file naming convention detailed below.

There is no requirement that these files be fixed width.

All text files for a submission must be zipped into one password protected zip file.

File Naming Convention

If the file-naming convention is not followed for either the zip file or the text files, the processing system will not recognise the submission as valid, and the run will be terminated.

Zip File Naming

Position	Variable Required	Format
1 – 4	Health service code	NNNN
5	Underscore	_
6 – 7	Year	YY
8	Underscore	_
9 – 10	Month	MM
11	Underscore	_
12 – 13	Extract end date	DD
14	Underscore	_
15 – 17	Submission number for this financial year.	NNN
18 - 21	.zip	.zip

Zip file structure:
[Health service code]_[Year]_[Month]_[Extract End Date]_[Submission Number].zip

Zip File Naming Example:

Health service code 5000, 3rd Submission for 2010/2011 31st August Submission, zip file:

5000_10_08_31_003.zip

The year, month and date represent the end date up to which the data has been extracted.

The following dates must all be earlier than the extract end date of any given submission:

- Date Of Birth
- Clinical Registration Date
- Administrative Registration Date
- Event Date
- Admission Date
- Removal Date

The extract end date cannot be greater than today's date and cannot be less than the previous extract's end date. The same end date may be resubmitted multiple times but the Submission sequence number must be incremented by one each time.

For example:

24th submission for the financial year: 5000_10_11_15_024.zip

25th submission for the financial year: 5000_10_11_15_025.zip

The submission sequence number (characters 15, 16 and 17 in the zip file name) is a count of the submissions whose extract end dates fall in a given financial year. Submission '001' is the first and the number sequence must increment by one each submission. This is intended to help identify any break in sequence (data extracted but not sent). The submission number must cycle back to 001 for the first submission named with a July Extract End Date.

For example:

Final submission containing a 2011-2012 Extract End Date, for health service '5000' (Test health service) might be named 5000_11_06_30_056.zip. If the next submission had an extract end date of 9 July 2012, it would be named 5000_12_07_09_001.zip

A financial year starts on the 1st July and ends at Midnight on the 30th June of the previous financial year.

Text File Naming

Position	Variable Required	Format
1 – 4	Health service code	NNNN
5	Underscore	_
6 – 7	Year	YY
8	Underscore	_
9 – 10	Month	MM
11	Underscore	_
12 - 13	Submission end date	DD
14	Underscore	_
15 - 17	Submission number	NNN
18	Underscore	_
19	Table identifier P = Patient table E = Episode table I = Intra episode table R = Reconciliation table M = Merge table	A
20 - 23	.txt	.txt

Text file structure:
[Reporting health service code]_[Year]_[Month of Submission]_ [Submission end date]_[Submission Number]_[Table identifier].txt

Text File Naming Example:

5000_11_11_15_024_P.txt (Test health service, 24th submission for the year, 15 November 2011 submission, Patient Table records).

The first eighteen characters of the text file's name should be identical to the first eighteen characters of the name of the zip file in which the text file is submitted.

File Security

To deter unauthorised access and protect patient privacy, submitted files and files produced by Department of Health via electronic mail must be:

- zipped using WinZip Version 10 or later, and
- encrypted using 128-bit AES encryption, and
- password protected using the password supplied by the department.

Please contact the DH ESIS data collection manager or the HDSS Helpdesk if you have not received a password.

If a submission file is not zipped and password protected, it will not be processed.

Department of Health will advise reporting health services of alternate submission arrangements if security requirements change (due to viruses or firewall issues).

Text Extracts

Each elective surgery waiting list episode must be reported to ESIS. When extract files are generated for submission, health services should submit only the records that have been added or changes since the previous submission. Software should date stamp changes internally to facilitate correct extraction. Extractions should also be uniquely identified and stored by the software for re-use if required. Each time a submission is processed by ESIS, the related data will be updated until the waiting episode is completed and the record removed from the elective surgery waiting list.

Unit record level elective surgery data are reported in the following text extracts:

- **Patient extract**: contains Patient Identifier and demographic data specific to the patient.
- **Episode extract**: contains Episode Identifier, Patient Identifier (to link to the Patient Extract data) and waiting list data specific to a single waiting list episode.
- **Intra Episode Event extract**: contains data relating to changes of patient urgency and status throughout the waiting list episode.

The health service generated Episode Identifier links data relating to a single waiting episode. The Episode Identifier is the *Primary key* in the Episode table and the *Foreign key* in the Intra Episode Event table.

The Patient Identifier reported by the health service is the primary key in the patient table and the foreign key in the Episode table.

This enables identification of all episodes for a patient at a single health service.

Patient Extract Structure

Note	Data Item	Label	Field size	Layout/Code Set
M	Patient Identifier	Patient_Identifier	10	XXXXXXXXXX
M	Date Of Birth	Date_Of_Birth	8	DDMMYYYY
M	Date of Birth Accuracy Code	DOB_Accuracy_Code	3	NNN
M	Indigenous Status	Indigenous_Status	N/A	Code from code set
M	Sex	Sex	N/A	Code from code set
1	Medicare Number	Medicare_Number	11	NNNNNNNNNN or blank
M	Medicare Suffix	Medicare_Suffix	Between 1 and 3 characters.	AAA, AA, A'A, AA', A, A-A, AA-
M	Postcode	Postcode	N/A	Code from code set
M	Locality	Locality	N/A	Code from code set

Key To Note	
M	Mandatory
1	Report when made available by the patient

Episode Extract Structure

Note	Data Item	Label	Field size	Layout/Code Set
M	Episode Identifier	Episode_Identifier	9	XXXXXXXXX
M	Patient Identifier	Patient_Identifier	10	XXXXXXXXXX
2	Date Of Admission	Date_Of_Admission	8	DDMMYYYY
3	Destination	Destination	N/A	Code from code set
4	Insurance Declaration	Insurance_Declaration	N/A	Code from code set
M	Planned Length Of Stay	Planned_Length_Of_Stay	N/A	Code from code set
M	Principal Prescribed Procedure	Principal_Prescribed_Procedure	N/A	Code from code set
5	Principal Prescribed Procedure Description	PPP_Description	Up to 100	Free text excluding tabs, linefeeds and carriage returns
M	Reason For Removal	Reason_For_Removal	N/A	Code from code set
M	Administrative Registration Date	Administrative_Registration_Date	8	DDMMYYYY
M	Clinical Registration Date	Clinical_Registration_Date	8	DDMMYYYY
M	Removal Date	Removal_Date	8	DDMMYYYY
M	Source Of Referral	Source_Of_Referral	N/A	Code from code set
M	Surgical Specialty	Surgical_Specialty	N/A	Code from code set
M	Treatment Campus	Treatment_Campus	N/A	Code from code set
6	Previous Identifier of Transferred Episode	Previous_Identifier_of_Transferred_Episode	13	XXXXXXXXXXXX

Key To Note	
M	Mandatory
1	Report when made available by the patient
3	Mandatory for Reason For Removal codes N, S and X
4	Mandatory for Reason For Removal codes W, M, S, Y and X
5	Mandatory for non specific PPP codes
6	Mandatory for Source of Referral code 2

Intra Episode Extract Structure

Note	Data Item	Label	Field size	Layout/Code Set
M	Episode Identifier	Episode_Identifier	9	XXXXXXXXX
M	Event Type	Event_Type	N/A	Code from code set
M	Event Date	Event_Date	8	DDMMYYYY
M	Event Value	Event_Value	N/A	Code from code set or DMMYYYY
7	Scheduled Admission Date Identifier	SAD_Identifier	10	NNNNNNNNNN

Key To Note	
M	Mandatory
7	Mandatory for SET SAD and Reason SAD Changed events. Must be blank for all other intra-episode events

Merge Extract Structure

The Merge extract contains data to instruct the merge of Patient Identifiers. This identifies the Patient Identifier/s to be ceased and the Patient Identifier to be retained.

Note	Data Item	Label	Field size	Layout/Code Set
M	Ceased Patient Identifier	Ceased_Patient_Identifier	10	XXXXXXXXXX
M	Retained Patient Identifier	Retained_Patient_Identifier	10	XXXXXXXXXX

Key To Note	
M	Mandatory

See: Section 4 Merging Records.

Reconciliation Table Structure

Note	Data Item	Label	Field size	Layout/Code Set
M	Aggregate Identifier	Aggregate_ID	1	N
M	Aggregate Description	Aggregate_Description	N/A	Code from code set
M	Aggregate Value	Aggregate_Value	Up to 6 characters	NNNNNN

Key To Note	
M	Mandatory

Reporting Guide

Aggregate_ID	Aggregate_Description
1	Number of registrations year to date
2	Number of removals year to date

Number of registrations, year to date:

A count of the total number of Registrations in all submissions for the current financial year to date, regardless of the year in which the Registration Dates fall.

For example:

The first submission in July 2011 contains 35 new registrations from June 2010 (previous financial year) and 45 new registrations from July 2011 (current financial year). The Aggregate Value for Number of registrations year to date in the first July 2011 submission is 80.

Number of removals, year to date:

A count of total number of Removals in all submissions for the current financial year to date, regardless of the year in which the Removal Date falls.

For example:

The first submission in July 2010 contains 103 removals from June 2010 (previous financial year) and 20 removals from July 2010 (current financial year). The aggregate value for number of removals year to date in the first July 2010 submission is 123.

See: Section 6 Editing

ESIS Operational Data Store (ODS) Files

On receipt of each health service's ESIS submission a series of reports are returned to health services. These reports provide health services a range of valuable information including waiting list performance data and summaries regarding data edits. The reports are provided in two zip files containing the submission file name followed by "ODS" and "Edits". Operational Data Store (ODS) files are a snapshot summary of your health service's ESIS data that has been successfully loaded into the ESIS database for the current financial year. Note, a minimum of 4 month of ODS data is provided at the commencement of the financial year, therefore from July to September the ODS data will contain ODS data from the previous financial year.

ESIS ODS file naming convention example –

The two output files returned to health service code 5000 for their 3rd submission in 2010-11 with an extraction end date of 31st March 2011 would be labelled in the following format;

5000_11_03_31_003_ODS.zip and 5000_11_03_31_003Edits.zip

Refer to the Census File format specification below for the fields included in the ODS census extract.

Census ODS File Structure (XXXX_YY_MM_DD_ODS_C.txt)

Data Item	Label	Format / Values	Description
Patient Identifier	Patient Identifier	NNNNNNNNNN	An identifier unique to a patient within this submitting health service. Commonly referred to as the unit record, or UR number.
Episode Identifier	Episode Identifier	NNNNNNNNN	A string of characters that uniquely identifies a waiting episode for a given health service.
Census Date	Census Date	DD MMM YYYY	Date on which a snapshot of a waiting list is taken for reporting purposes. ESIS census dates occur on the 15th and the final day of each month.
Reportable Prescribed Principal Procedure	Reportable PPP	PPP < 500 (Reportable) PPP > 500 (Not reportable)	A code describing the elective surgery procedure for which the patient has principally been placed on the waiting list
Total Ready For Care Days	Total RFC Days	N	The total number of days an episode has been waiting as "ready for care"
Total Not Ready For Care Days	Total NRFC Days	N	The total number of days an episode has been waiting as "NOT ready for care"
Day of Surgery on Admission Flag	DOSA Flag	N/A Yes No	Flag to indicate whether admission was on same day as surgery

Census Urgency	Census Urgency	1 – Category 1 2 – Category 2 3 – Category 3	Clinical urgency category at census date.
Census Readiness	Census Readiness	Ready – Ready for care Not Ready – Not ready for care	Readiness for care status as at census date.
Within Time	Within Time	Y – Yes, within desired waiting time N – No, not within desired waiting time	Flag which denotes whether a record is within desired waiting time for each urgency. Desired waiting times; Category 1 < 30 days Category 2 < 90 days Category 3 < 365 days
Census Removal	Census Rmvl	**Adm as planned** – Patient admitted for procedure as planned on the scheduled admission date. Returned when Reason For Removal is reported as **W, S or X** **Adm not as planned** – Patient admitted for procedure but surgery not performed on the scheduled admission date. Returned when Reason For Removal is reported as **B, I, U, M, & Y** **Not Rmvd** – Not removed from the waiting list Returned when Reason For Removal is reported as **blank** **Other Rmvl** – Removed from the waiting list for reasons other than admission for surgery, i.e. Not admitted. Returned when Reason For Removal is reported as **R, Z, Q, F, O, N & T**	This field defines the removal status at the census date.
Waiting List Counter	0	N	This field provides a counter for each waiting list episode within the month of ESIS data. '1' is assigned for each waiting list episode in the given ESIS month.

The Patient, Episode and Intra-episode ODS files contain the same data items as the raw ESIS submission files reported to ESIS. These files reflect the Patient, Episode and Intra-episode data stored in ESIS for the last four census dates.

Patient ODS File Structure (XXXX_YY_MM_DD_ODS_**P**.txt)

Note – The fields returned in the return patient file are in a different order to those in the file submitted from health services to DH.

Data Item	Label	Field size	Layout/Code Set
Patient Identifier	Patient_Identifier	10	XXXXXXXXXX
Medicare Number	Medicare_Number	11	NNNNNNNNNN or blank
Medicare Suffix	Medicare_Suffix	Between 1 and 3 characters.	AAA, AA, A'A, AA', A, A-A, AA-
Date Of Birth	Date_Of_Birth	8	DDMMYYYY
Sex	Sex	N/A	Code from code set
Indigenous Status	Indigenous_Status	N/A	Code from code set
Postcode	Postcode	N/A	Code from code set
Locality	Locality	N/A	Code from code set

Episode ODS File Structure (XXXX_YY_MM_DD_ODS_**E**.txt)

Data Item	Label	Field size	Layout/Code Set
Episode Identifier	Episode_Identifier	9	XXXXXXXXX
Clinical Registration Date	Clinical_Registration_Date	8	DDMMYYYY
Administrative Registration Date	Administrative_Registration_Date	8	DDMMYYYY
Source Of Referral	Source_Of_Referral	N/A	Code from code set
Principal Prescribed Procedure	Principal_Prescribed_Procedure	N/A	Code from code set
Principal Prescribed Procedure Description	PPP_Description	Up to 100	Free text excluding tabs, linefeeds and carriage returns
Surgical Specialty	Surgical_Specialty	N/A	Code from code set
Treatment Campus	Treatment_Campus	N/A	Code from code set
Destination	Destination	N/A	Code from code set
Insurance Declaration	Insurance_Declaration	N/A	Code from code set
Planned Length Of Stay	Planned_Length_Of_Stay	N/A	Code from code set
Date Of Admission	Date_Of_Admission	8	DDMMYYYY
Removal Date	Removal_Date	8	DDMMYYYY
Reason For Removal	Reason_For_Removal	N/A	Code from code set
Patient Identifier	Patient_Identifier	10	XXXXXXXXXX
Previous Identifier of Transferred Episode	Previous_Identifier_of_Transferred_Episode	13	XXXXXXXXXXX

Intra-Episode ODS File Structure (XXXX_YY_MM_DD_ODS_**I**.txt)

Data Item	Label	Field size	Layout/Code Set
Episode Identifier	Episode_Identifier	9	XXXXXXXXX
Event Type	Event_Type	N/A	Code from code set
Event Date	Event_Date	8	DDMMYYYY
Event Value	Event_Value	N/A	Code from code set or DMMYYYY
SAD Identifier	SAD_Identifier	10	NNNNNNNNN

Using Census (C) ODS File to monitor Health Service KPIs

Health services can use the Census file information to monitor the ESIS Key Performance Indicators (KPIs) set out in the 2011-12 *Statement of Priorities and Performance Framework Business Rules;*

These include:

- Percentage of Category 1 elective patients admitted within 30 days
- Percentage of Category 2 elective surgery patients waiting 90 days or less
- Percentage of Category 3 elective surgery patients waiting 365 days or less
- Number of patients on the elective surgery waiting list
- Number of elective surgery admissions

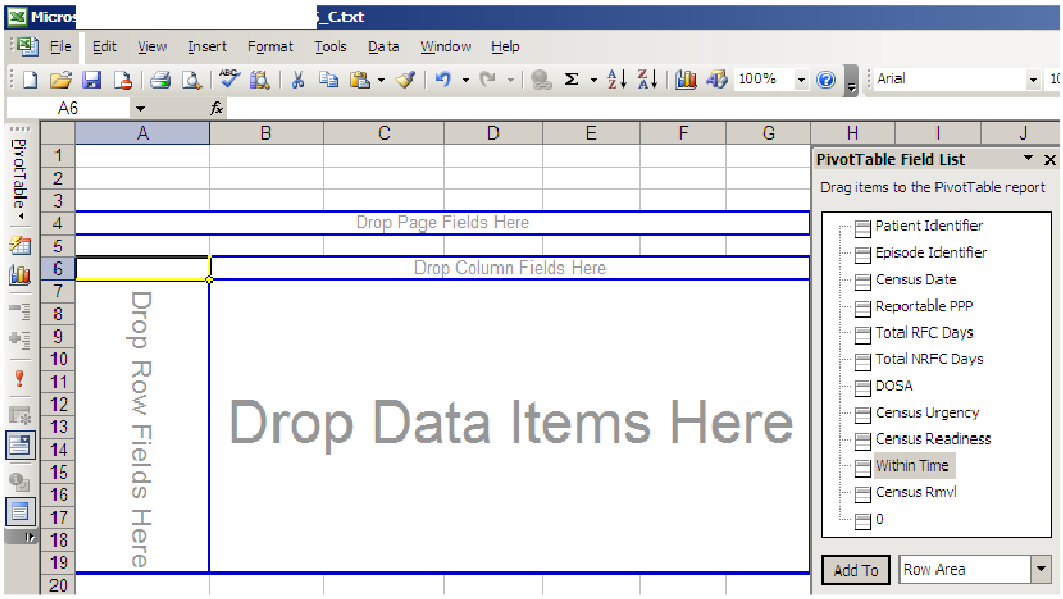
An easy and effective way to perform analysis on the above measures is to open the Census text file in MS Excel and place the data into a Pivot Table.

Follow the below steps on how to place the census data into a pivot table using Microsoft Excel;

1. Unzip and save the census file XXXX_YY_MM_DD_ODS_**C**.txt
2. Open the census text file with Excel. (Right click Census file, Open with, Microsoft Office Excel).
3. Once the census data is in Excel, Select All census data, (i.e. Ctrl + A)
4. Then in Excel, click 'Data', then click 'PivotTable and PivotChart Report...' (note that users using Excel 2007 will go to Insert menu and then click Pivot Table).

This launches the PivotTable Wizard

5. Click Finish



6. The Pivot table and field list should appear in a new worksheet (as above)

7. Drag and drop the data items into the PivotTable that are relevant to your analysis. Fields can be dropped into Page Fields, Row Fields and Column Fields.

ESIS ACCESS KPI 10 - Percentage of Category 1 elective patients admitted within 30 days

Ensure that the census data in the Pivot Table is filtered to ensure only the following data is returned;

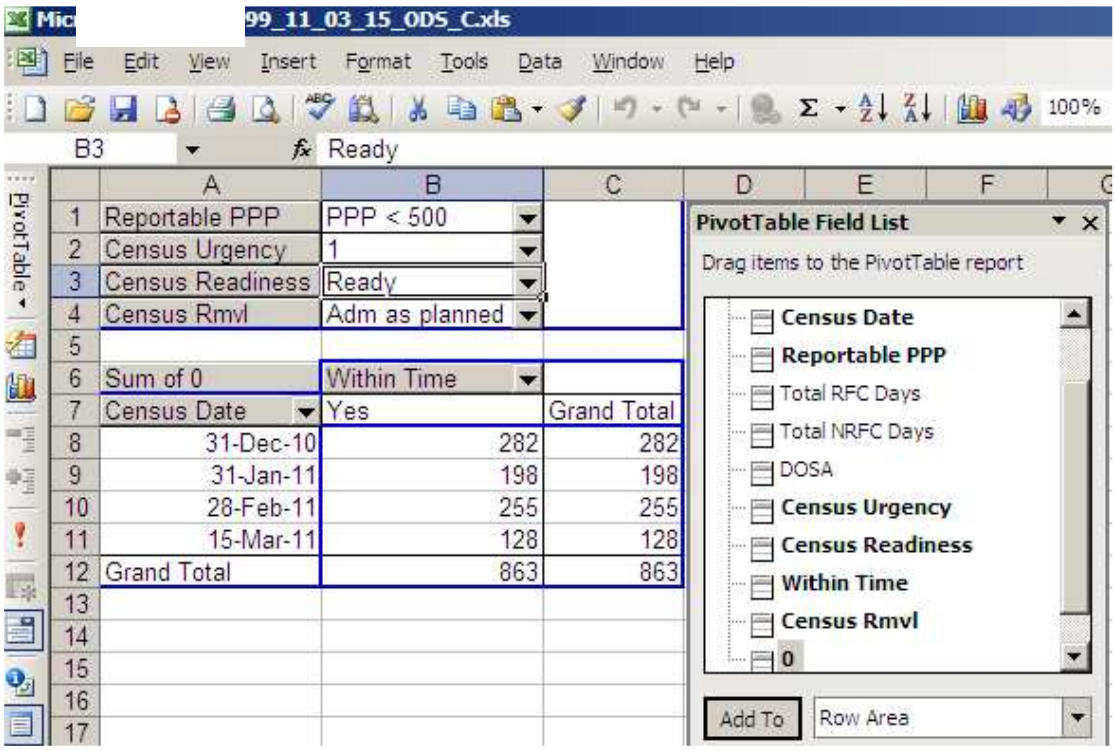
- PPPs < 500
- Census Urgency = 1 (Category 1)
- Census Readiness = Ready (Ready for care)
- Census Rmvl = Adm as planned (Admitted as planned)
- Census Date is added to the Row Fields. The most recent 4 census dates will appear in the rows by default
- Within time allows filtering on weather the patient was seen within 30 days (Yes) or not (No). (Drag Wait Time into the Column Field)
- Sum of 0 provides a count of Cat 1 patients

See example of the filters applied below.

Note –

Percentage of Category 1 elective patients admitted within 30 days =

Within Time Yes/Grand Total x 100



ESIS ACCESS KPI 5 - Percentage of Category 2 elective patients waiting 90 days or less

Ensure that the census data is filtered to ensure only the following data is returned;

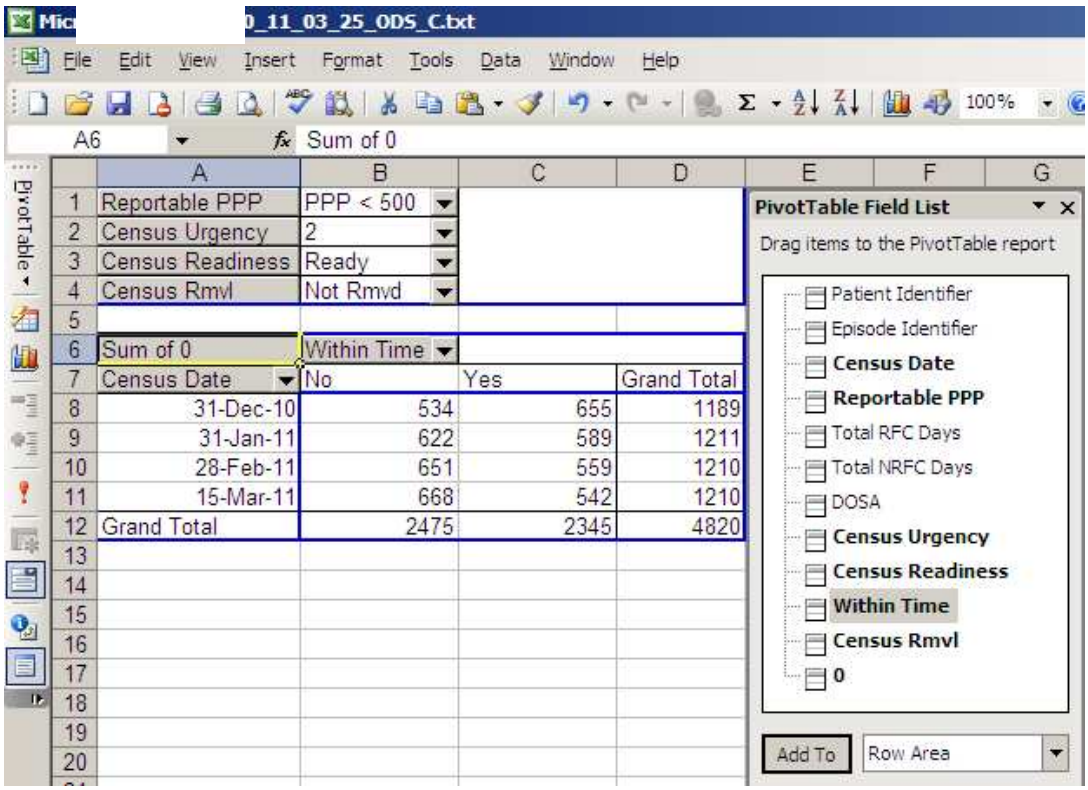
- PPPs < 500
- Census Urgency = 2 (Category 2)
- Census Readiness = Ready (Ready for care)
- Census Rmvl = Not Rmvd (Not removed)
- Census Date is added to the Row Fields. The most recent 4 months will appear in the rows by default
- Within time allows filtering on weather the patient was seen within 90 days (Yes) or not (No).
- Sum of 0 provides a count of Cat 2 patients

See example of the filters applied below.

Note –

KPI 5 - Percentage of Category 2 elective patients waiting 90 days or less =

Within Time Yes/Grand Total x 100



ESIS ACCESS KPI 6 - Percentage of Category 3 elective patients waiting 365 days or less

Ensure that the census data in the Pivot Table is filtered to ensure only the following data is returned;

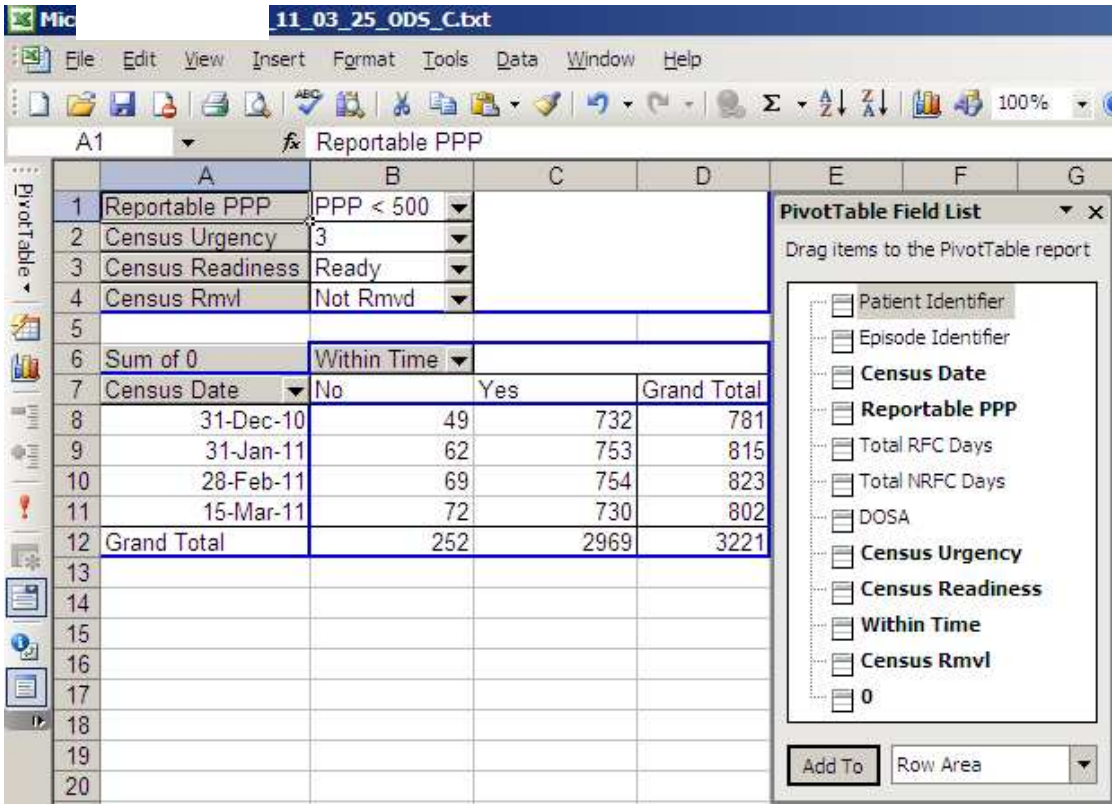
- PPPs < 500
- Census Urgency = 3 (Category 3)
- Census Readiness = Ready (Ready for care)
- Census Rmvl = Not Rmvd (Not removed)
- Census Date is added to the Row Fields. The most recent 4 months will appear in the rows by default
- Within time allows filtering on weather the patient was seen within 365 days (Yes) or not (No).
- Sum of 0 provides a count of Cat 3 patients

See example of the filters applied below.

Note –

KPI 6 - Percentage of Category 3 elective patients waiting 365 days or less =

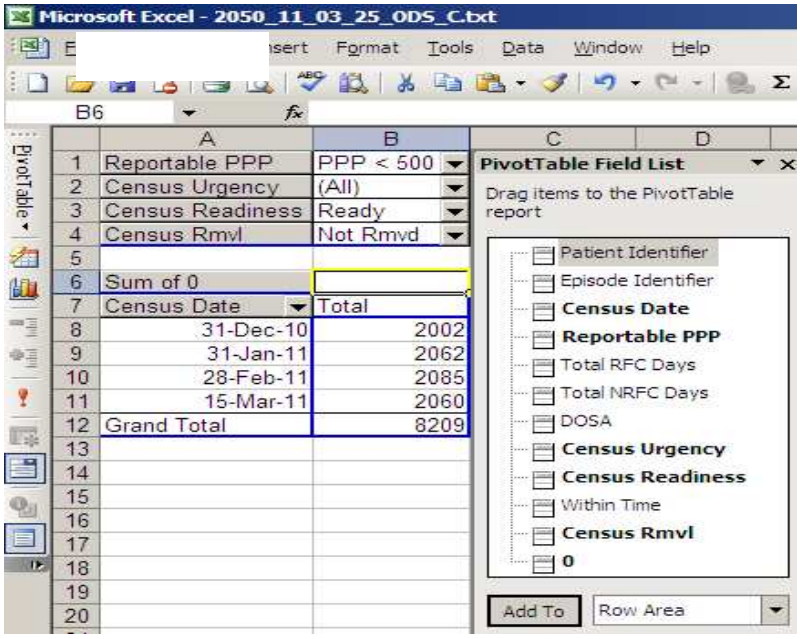
Within Time Yes/Grand Total x 100



ESIS ACCESS KPI 7 – Number of patients on the elective surgery waiting list

Ensure that the census data in the Pivot Table is filtered to ensure only the following data is returned;

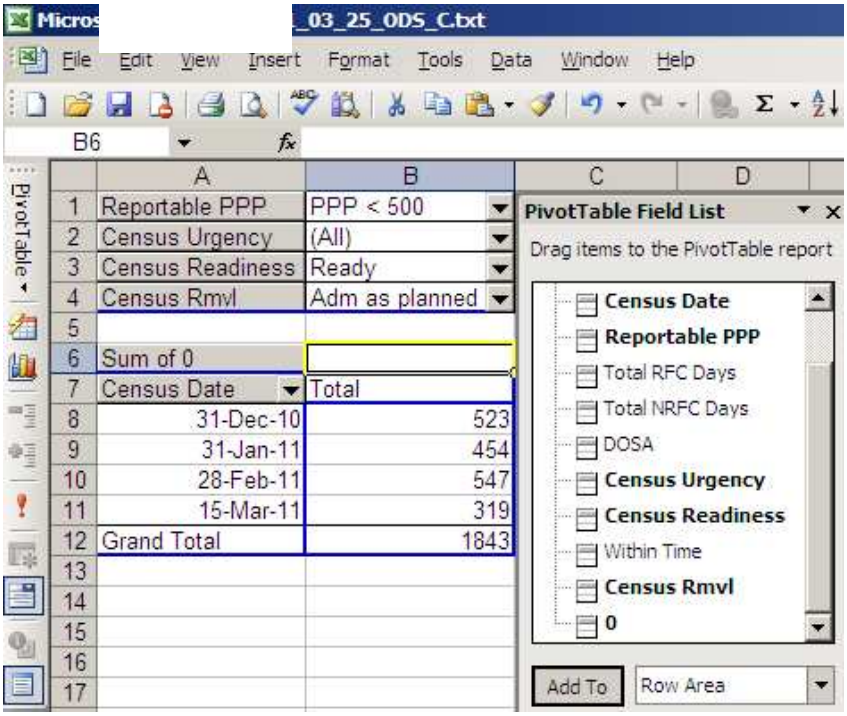
- PPPs < 500
- Census Urgency = ALL
- Census Readiness = Ready (Ready for care)
- Census Removal = Not Rmvd (Not removed)
- Census Date is filtered to the month in question. The most recent 4 months will appear in the rows by default
- Sum of 0 provides a count of patient on the elective surgery waiting list
- Note – Within Time is not required to calculate this KPI



ESIS SERV KPI 1 – Elective Surgery Admissions

Ensure that the data in the Pivot Table is filtered to ensure only the following data is returned;

- PPPs < 500
- Census Urgency = ALL
- Census Readiness = Ready (Ready for care)
- Census Rmvl = Adm as planned (Admitted as planned)
- Census Date is filtered to the month in question. The most recent 4 months will appear in the rows by default
- Sum of 0 provides a count of patient on the elective surgery waiting list



Data Submission

ESIS submissions must be sent to the ESIS email address:

ESIS.ESIS@health.vic.gov.au

Department of Health will advise reporting health services of alternate submission arrangements if submission requirements change (due to viruses or firewall issues).

Data Submission Timelines

ESIS data must be submitted in accordance with the reporting schedule to avoid Data Quality and Timeliness (DQT) penalties.

Note: Data Quality and Timeliness assessments will not be applied to edits relating to episodes whose Principal Prescribed Procedure (PPP) is 500+.

Health Services are required to adhere to the following ESIS minimum submission timelines:

Period	File Content	Due
First fifteen days of the month (1st to 15th)	Data must include all activity (registrations, removals, readiness, urgency and scheduling events)	Received at the department no later than 5:00pm on the 3rd working day after the 15th of the month.
The remaining days of the month (16th and subsequent).	Data must include all activity (registrations, removals, readiness, urgency and scheduling events)	Received at the department no later than 5:00pm on the 3rd working day of the following month.

Health services may submit ESIS data more frequently in order to manage resources and workload issues related to data submission and corrections. All outstanding rejections, notifiables and correction edits must be resolved by the ESIS clean date. ESIS clean dates are scheduled on the 14th day of the following month, or the preceding working day if the 14th falls on a weekend or public holiday. This allows health services two full working weeks to provide corrections for outstanding edits.

ESIS data submission deadlines and clean dates are specified in Section 1 – ESIS Data Submission Timeframes.

The department will endeavour to process submissions within one working day of receipt of the data. Any outstanding corrections for the financial year must be transmitted before consolidation of the ESIS database on 21 August 2012.

Where health services do not comply with the above timelines, the department may apply a penalty of up to:

- $3,600 if a reporting period's activity (1st to 15th being a period and 16th and subsequent being a period) is not submitted by the timeline specified above
- $1,800 for each *Rejection* and *Notifiable* edit that is not resolved by the timeline specified
- $3,600 for each *Rejection* and *Notifiable* edit that is not resolved within thirty days of the timeline specified or database consolidation, whichever comes first.

If it is anticipated that there will be some difficulty experienced in meeting the ESIS deadlines, health services must complete an ESIS Late Data Exemption Request form located within the ESIS section of the HDSS website. This form must be completed in order to avoid the ESIS Data Quality and Timeliness penalties set out in the Victorian Health Services Policy and Funding Guidelines, Heath Operations.

Exemptions for late data will only be considered for circumstances beyond the control of the health service.

Software problems are, of themselves, insufficient justification for late submission of data. Health services are expected to have arrangements in place with their software vendor to ensure that statutory reporting requirements are met.

Submissions for exemption should be received by the appropriate consolidation deadline. Under no circumstances will consideration of exemption from late penalties be given to exemption requests received after 5pm on 21 August 2012.

For any period that the health service is unable to supply unit record data, the health service is required to submit manual aggregate data. Additional penalties may apply for failure to submit aggregate data when required.

The reporting schedule for ESIS is published in the *Victorian Health Services Policy and Funding Guidelines 2011-12*, found on the following website:

http://www.health.vic.gov.au/pfg/downloads/pfg-part2.pdf

Referential Integrity

Referential integrity is enforced between Patient, Episode and Intra Episode level data. This means that if an:

- invalid Patient Identifier is reported in the Patient extract, the record will not be inserted into the ESIS editing database, it will be 'rejected'. Any related Episode or Intra Episode records will also fail to be inserted until the patient record is corrected and resubmitted.
- invalid Patient Identifier is reported for a new episode record in the Episode extract, the episode record in question will not be inserted into the ESIS editing database, it will be 'rejected'. Any related Intra Episode records will also fail to be inserted until the episode record is corrected and resubmitted.
- invalid Patient Identifier is reported for an existing episode record in the ESIS editing database, it will not be updated. The update will be 'rejected' but the Episode record in its existing state will remain. Intra Episode records can still be inserted and updated, because the episode record exists.

For details regarding edits relating to Referential Integrity, refer to Section 6: Editing, Edit numbers S380 and S381

Test Submission and System Migration

When changes occur in the *Waiting List Management Systems (WLMS)* or sites move to a completely different system, the health service and software vendor are required to follow these testing requirements to meet statutory reporting requirements.

Note: Sites that implement any changes without appropriate testing may compromise their capacity to meet reporting requirements.

It is a condition of funding that health services provide the Department of Health with accurate and timely data. For more details:

See: *Victorian Health Services Policy and Funding Guidelines, Health Operations.*

http://www.health.vic.gov.au/pfg

Health Services should not accept delivery of a system that requires any manipulation of extracts after they have been extracted by the system. All corrections to data should be able to be effected through the system front-end. Post-extraction manipulation of data has been shown to cause excessive errors, be difficult to correct, and causes inconsistency between the health services medico-legal record and the data at the Department of Health.

Health Services must not decommission their existing software until they are given approval from the department to go live with the new system. This will enable sites to continue to meet reporting requirements during the testing phase.

Details of the testing process

When is testing is necessary?

The submission of test data to ESIS is required under the following circumstances:

- if a site is new to ESIS reporting
- if a site changes software vendor or system
- if a site makes changes within the current software that may impact on the capacity to report
- to test annual revisions to reporting specifications

Department of Health has a test environment that accurately replicates the live environment, so sites can test at any time by prior arrangement. All test submissions must be prefixed with the word 'TEST' in the zip file name. The zipped text extracts should maintain the normal file naming convention. Department of Health will endeavour to process and return test data within one working day of receipt, but this is dependent on server and staff availability.

Period of data subject to testing

Unless otherwise agreed with the department, two consecutive months of waiting list activity should be successfully submitted to the ESIS test system. See Compilation of Test Data below for further details. When migrating test data to a new system, all migrated data should be tested to enable comparison with the existing data.

Notification of intention to test

Health Services should involve the department from the earliest stages of the decision to migrate to a new system. Send a letter or email to the ESIS help desk: ESIS.ESIS@health.vic.gov.au and include details such as:

- Name of vendor
- Version of software
- Proposed date of go-live
- Proposed testing plan
- Strategy for the electronic migration of data from old system to new system
- Nature of interface between the PMI and waiting list system

Considerations when changing software

Health Services changing software must consider the following:

- Patients Identifiers and Episode Identifiers must not change and cannot be re-used
- Scheduled Admission Date (SAD) Identifiers must be preserved and must not be re-used in the same episode
- Campus codes cannot be changed
- Data must not be migrated manually (that is, data may not be re-keyed into the new system)

Health Services must ensure that new Episode Identifiers allocated by the new software have not been previously used. Most systems' Episode Identifiers are incrementing integers, so if a site was up to 000323760, the new system must start from a number higher than that. It is also important that the vendor NEVER reset the incrementing of Episode Identifiers.

Considerations for a PMI merge

Health services undertaking a PMI merge at the time of changing software must ensure that the Patient Identifiers reported by one campus have not already been reported by another campus. A new Patient Identifier must be assigned to a patient who presents to the merged campus where the existing Patient Identifier has already been assigned by the other campus.

In a merge of PMIs it can transpire that episodes from one site have the same Episode Identifier as episodes from another site involved in the merge. The original Episode Identifiers reported to ESIS for both sites must be preserved in a way that allows them to continue to be reported to ESIS. To effect this, vendors may have to store both a new Episode Identifier for internal purposes and the original Episode Identifier for reporting purposes, against the episode so that both internal and external reporting requirements can be accommodated.

Data migration

One of the most important aspects of moving to a new system is managing the migration of data from the old system to the new system. Ideally all operational data should be migrated from the old system to the new one. Without this sites may lose access to important historical information required for business management, planning and analysis and patient care.

Data must not be migrated manually, that is, by re-keying data into the new system.

Compilation of test data

If a site is new to ESIS reporting, testing expectations will be different to a site currently submitting to ESIS.

In their first submission, a new site will need to submit all historic activity (all urgency readiness and scheduling events for all episodes that are unremoved) as at the date of commencement as agreed between the Department of Health and the site.

In a test submission for a site currently reporting to ESIS, continuity between the test submission and previously submitted data will need to be maintained. That is, all intra episode events that have occurred since the last submission should be contained within the first test submission. All unremoved episodes in the system as at an agreed date, in addition to the normal submission, must be included to ensure that Department of Health data reconciles with the Health Service's internal system.

In order for Department of Health to test the effectiveness of a migration to a new system, sites need to be aware of the following:

- The first extract end date from the new system must be within seven days of the extract end date of the last submission generated from the previous system.
- The first submission from the new system must contain all records for episodes unremoved (and all related patient and intra-episode data) as at that submission's extract end date.
- The first submission from the new system must also contain all reportable activity occurring between the extract end date of the last submission generated from the previous system and the new submission's extract end date.
- DH returns raw data files known as 'ODS text files' to sites after each run. They represent the Department of Health view of the site's waiting list, in a similar format originally sent to Department of Health. The new system must provide the site with sufficient reporting access to the site's operational data to allow for reconciliation between that data, and the ODS text files.

The data sent in the first submission from the new system, will be compared with what should be the same data sent from the old system. While it will not be a requirement that new data exactly correspond with data sent from the old system, discrepancies will only be accepted where it can be demonstrated that the data from the new system is a more accurate representation of the patient's actual experience than data from the old system.

Health Services may optionally wish to send to the department a small subset or sample of their extracted data at any stage for preliminary inspection. The department will assess things such as:

- File naming convention
- Zip passwords (if applicable)
- Text file field and row delimiters
- Column headers and number of columns

Note: this data will not be run in the test or live ESIS editing suite.

Submission of live data for testing

The submission file must be emailed to ESIS.ESIS@health.vic.gov.au and the subject of the email must be clearly labelled 'Test data'.

Note: to prevent a test submission accidentally being run in the live system the zip file naming convention should have the word 'TEST' appended to the start of the file name.

For example:

5000_10_11_15_024.zip

would be changed to

'TEST5000_10_11_15_024.zip'.

Please leave the zipped text files named according to the prescribed convention:

For example:

5000_10_11_15_024_p.txt.

Evaluation

Health Services and DH must be satisfied that the new software can successfully perform:

- Deletions (at Patient, Episode and Intra-Episode level)
- Merges
- Updates to episode and intra-episode records irrespective of whether they are removed or unremoved
- Insertion of missing intra-episode records irrespective of whether the episode is removed or unremoved
- Alteration of Clinical Registration Date and dependant dates (such as the episode's initial Urgency and Readiness event dates)

The test data must be free of referential integrity errors.

See: (Section 6 Editing) Edits S380 and S381.

A site cannot go live if the editing process generates any errors that are unable to be corrected through the normal user interface.

A Department of Health ESIS representative will assist in the interpretation of errors throughout the testing process.

Manual data collection during testing

If testing delays normal submission, then until normal submissions of ESIS data resume, an agreed minimum dataset must be submitted via a form. The minimum dataset will consist of:

- admission activity
- number of waiting list episodes by speciality and urgency
- number of cancellations
- number of hospital initiated postponements and scheduled admission dates.

For further information about the forms, please contact:
ESIS.ESIS@health.vic.gov.au

Exemptions from submission deadlines during testing

Exemptions from submission deadlines are only applicable to those who have demonstrated strong evidence of a well-planned migration.

In the normal course of migrating to a different system, some consideration will be given to extended reporting deadlines.

Data Manipulation Policy

In the normal course of business, the department will not condone manipulation of any data extracts (for example with Microsoft Excel, Notepad or any other data manipulation tool) that causes change in data values prior to processing by the Department.

The rationale for this is as follows:

- It is expected that health services have a contractual arrangement with software vendors that obliges vendors to provide software to health services that allows them to meet their statutory reporting requirements. When negotiating software contracts, health services are strongly advised to consider the impact of data quality and timeliness penalties that may apply where the vendor fails to deliver a product that meets statutory reporting requirements. In effect, the vendor's software should be capable of producing an extract in the format required by the department.
- The department acknowledges that any software may have the potential to extract data that can trigger 'Rejection' edits. Where this occurs, data must be corrected via the health service's relevant operational database, thus eliminating the need for secondary data manipulation.
- *Correcting* errors in the extract, but not in the operational database, can lead to a misrepresentation of the health service's true position.
- There is an audit requirement that data received by the department is an accurate reflection of the health service's medicolegal system of record.

Health service responsibilities

In situations where software does not allow the health service to meet its reporting obligations, in the first instance, the health service should, report the problem to their software vendor. The terms of the contract between the health service and software vendor should ensure that these problems are addressed as a priority. In these situations, the use of third party data manipulation software may be an inevitable short-term consequence.

In such cases, the health service must:

- notify the department in writing of the specific problem, including the affected fields
- specify the plan and timeframe negotiated between the health service and vendor for the resolution of the situation
- receive written permission from the department before proceeding with the proposed data manipulation.

The department will maintain a register of such occurrences. Failure to meet the above conditions may result in the application of data quality and timeliness penalties. The written permission advice will include a date by which the department expects the problem to be resolved and data manipulation to cease. If the problem has not been resolved by this date, the department requires further notification.

Department of Health responsibilities

In rare circumstances a health service may require the department to adjust an extract in order to address a specific data quality issue.

The department will only consider this where:

- all other avenues have been exhausted
- the health service requests the changes in writing, confirming that it has made the changes to its own data (or indicating that this is not possible).
- the changes accurately reflect the health service's medico legal system of record.

The department maintains a register of all ESIS manual data changes for audit purposes.